



W E L C O M E

T O T H E W O R L D O F C L I O M E T R I C S

A N I N F O R M A T I O N T E C H N O L O G Y C O .  
S I N C E 1 9 9 8



# CLIOMETRICS

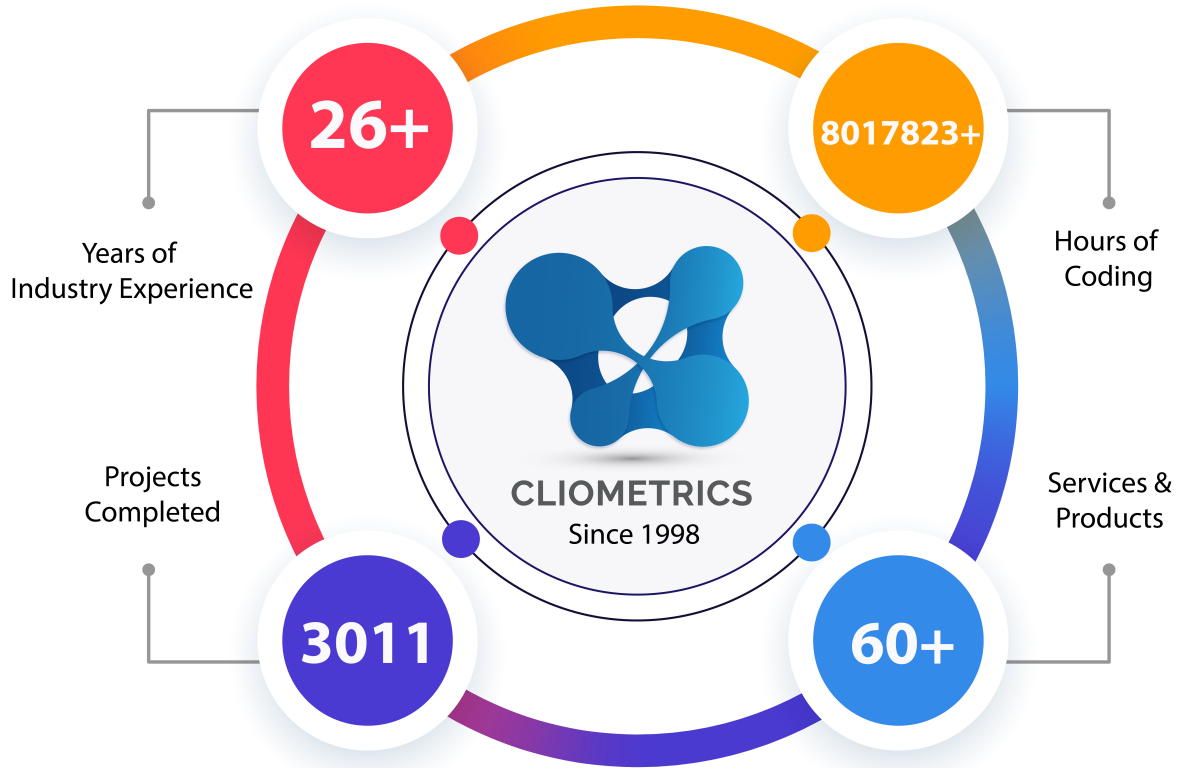
THE ART OF MAKING DATA STRUCTURES

Clio – Means “Art like Cleopatra”

Metrics – Means “Structures”

Cliometrics means – “The Art of Making Data Structures”

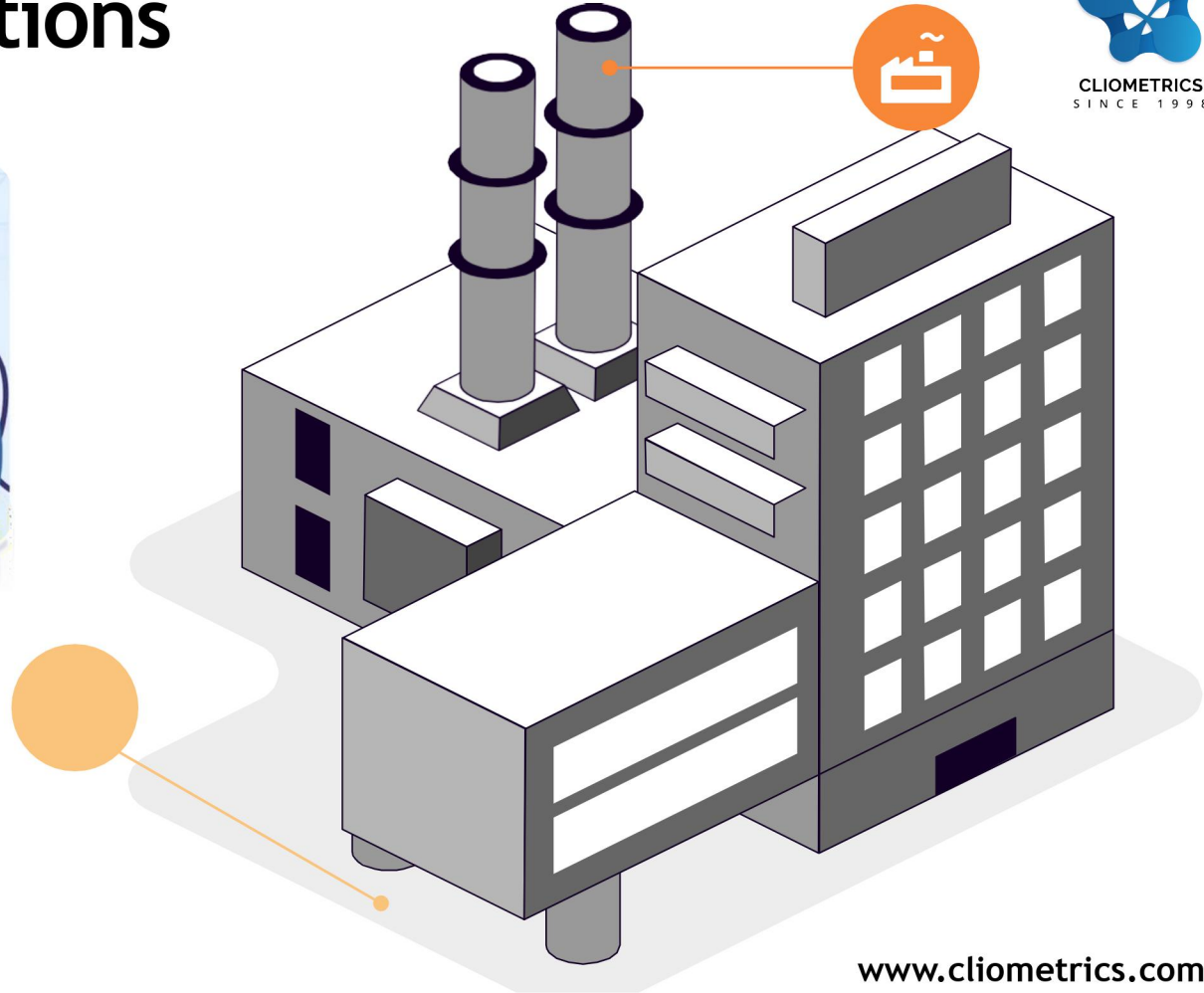
**26**  **Years of Excellence!**



# Industry 4.0 Solutions

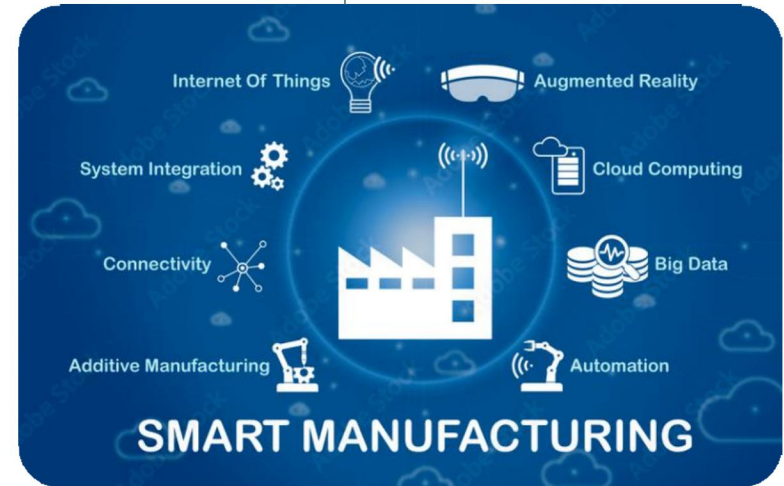


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SINCE 1998

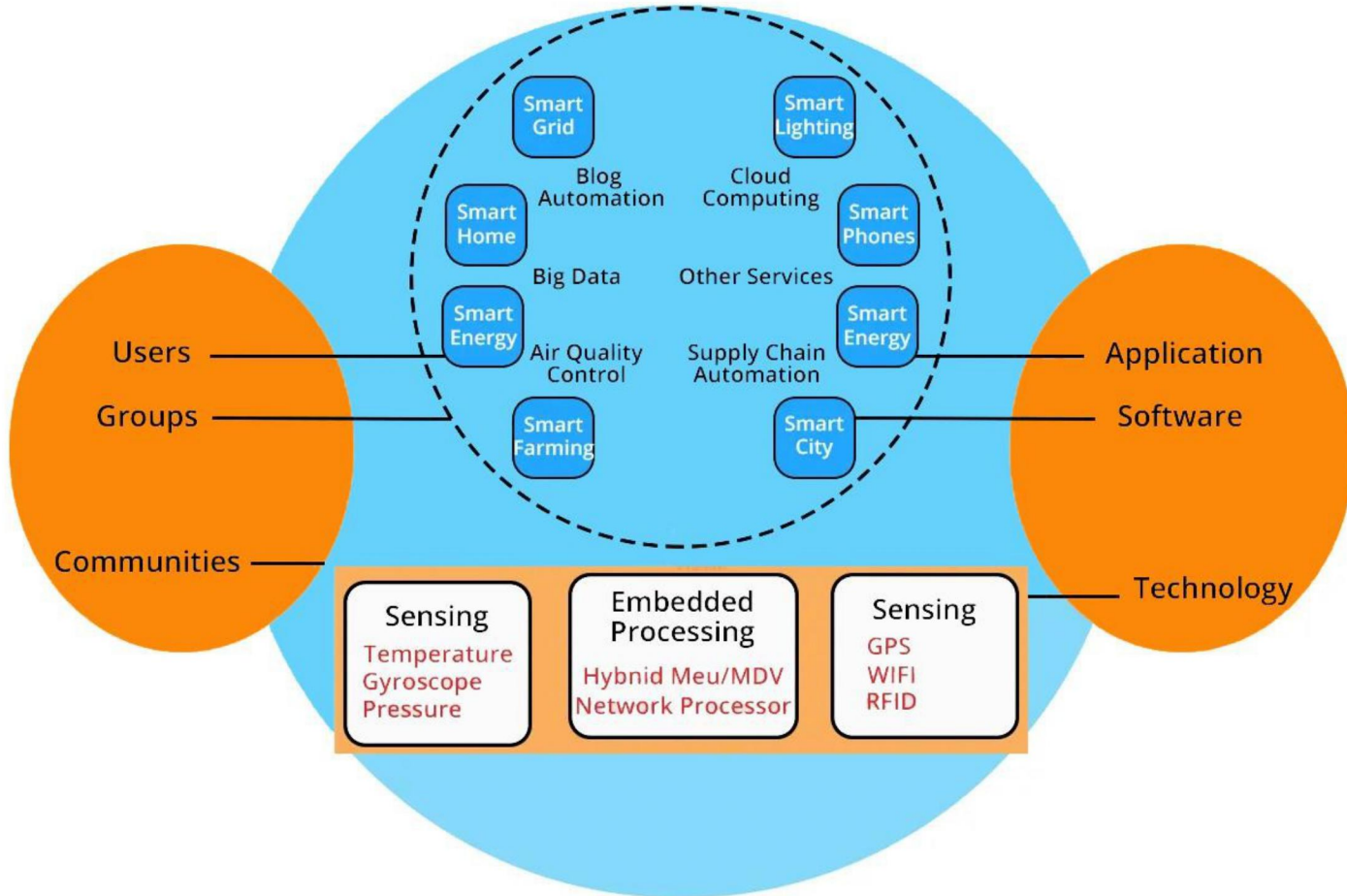




# SMART MANUFACTURING



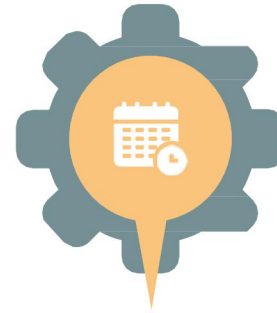
# IoT Ecosystem



# IoT Ecosystem

## Connectivity

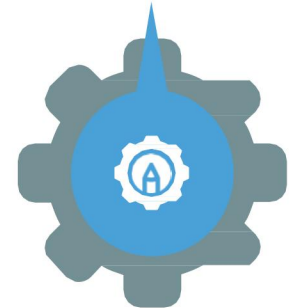
It Refers to the methods used to connect devices to the internet, such as Wi-Fi, cellular networks, or Bluetooth.



## Cloud platforms

The centralized servers or data centers that store and analyze the data generated by IoT devices.

Cloud platforms also provide services such as data management, security, and machine learning.



## Devices & sensors

The physical objects that are connected to the internet and are capable of collecting and transmitting data.



## Application & services

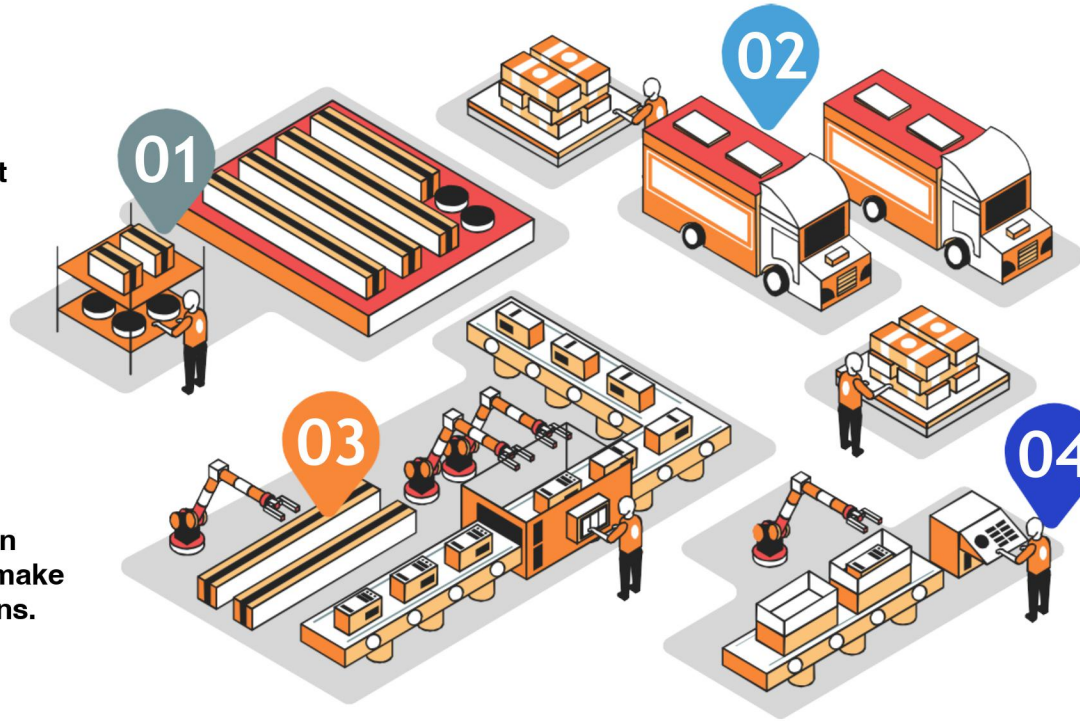
The software programs that run on top of the IoT ecosystem and enable users to interact with IoT devices and data. Examples include smart home apps, asset tracking software, and predictive maintenance tools.



# What Is Industry 4.0?

01

Large volumes of structured and unstructured data that can be analyzed to extract insights



02

Technologies that can protect connected systems and data from unauthorised access.

03

Technologies that can learn from data and make autonomous decisions.

04

Connected devices that can collect and transmit data to each other and to central systems.

Today, we'll explore the latest advancements and how they can benefit your business



## Real-time monitoring

System collects data from sensors and other sources in real-time, providing instant visibility into manufacturing processes.

## Predictive maintenance

The system uses machine learning algorithms to predict equipment failures and maintenance requirements, reducing downtime and maintenance costs.

## Automated reporting

Helps manufacturers to optimize their processes, improve efficiency, and reduce waste.



## Remote monitoring and control

System can be accessed remotely, allowing stakeholders to view reports and track key performance indicators from anywhere, at any time.



## Energy efficiency

System optimizes energy usage by identifying areas of energy waste and implementing energy-saving measures, such as reducing idle time.

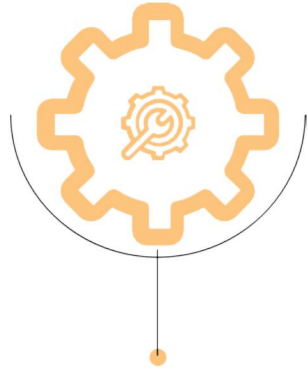


## Data analytics

System uses data analytics and visualization tools to turn raw data into actionable insights, identifying patterns and trends that can help optimize manufacturing processes.

# Benefits Of Industrial Automation In Manufacturing

01

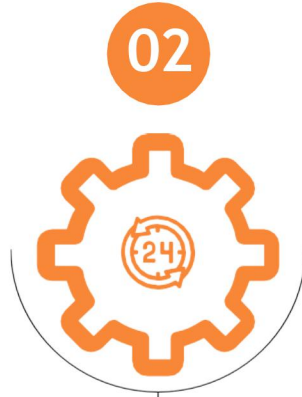


## Improved Efficiency

Increase manufacturing speed, accuracy, and consistency, resulting in higher production rates and reduced waste.

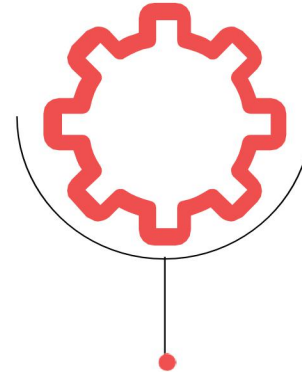
## Increased Quality

02



Help to reduce defects and errors in the manufacturing process, leading to higher quality products.

03



## Reduced Labour Costs

Help to reduce labor costs by reducing the need for human workers and enabling existing workers to focus on more complex tasks.

## Enhanced Safety & Flexibility

04



Reduce the risk of workplace accidents by taking over repetitive tasks prone to human error & adapt to changing customer demands and production.

# Agricultural Automation

01

## Pump health monitoring system

Monitor and optimize the performance of pumps used for irrigation, fertilization, and other agricultural processes.

02

## Flow monitoring

Important aspect of smart farming that involves measuring and regulating the flow of water or other fluids used for irrigation, fertilization, and other agricultural processes

03

## Soil moisture monitoring

Helps farmers to optimize irrigation schedules and reduce water waste by avoiding overwatering. It can also help farmers to identify areas of the field that have insufficient moisture and require additional irrigation.

04

## Fertiliser dispensers

The system uses sensors and automation to accurately dispense fertilizers in precise amounts, ensuring optimal application rates and reducing waste.



## Auto sprinkler



## Smart Irrigation



**01**  
**SMART FARMING**  
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**02**

**03**

**04**

## Smart greenhouse



## Predictive analytics



# Genset Monitoring System



## Sensors & meters

The system uses sensors and meters to measure various parameters of the genset, including fuel level, oil pressure, temperature, and electrical output



## Real time monitoring

The system provides real-time monitoring of the genset, with immediate alerts and updates if any parameters fall outside of predefined thresholds



## Data logging & analysis

The system can log data over time and perform analysis to identify trends, detect anomalies, and predict maintenance requirements



## Predictive maintenance

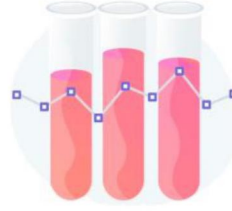
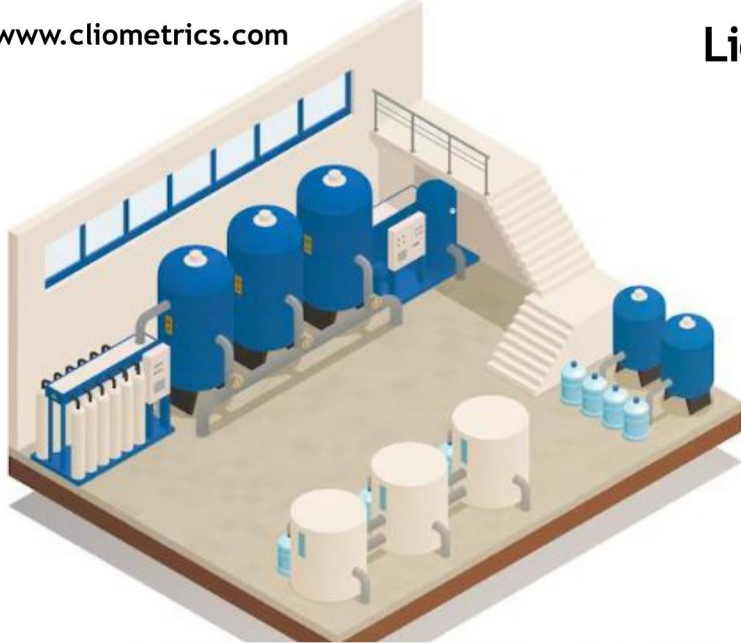
The system can use machine learning algorithms to predict maintenance requirements and optimize genset performance, reducing downtime and maintenance costs.

# Liquid Level Monitoring System



## Sensors

The system uses sensors to measure the level of liquid in tanks or containers. These sensors can use a variety of technologies, such as ultrasonic, radar, or capacitive



## Real-time monitoring

Real-time monitoring of liquid levels, with immediate alerts and updates if levels fall outside of predefined thresholds.



## Remote monitoring

Can be monitored remotely, allowing operators to check liquid levels and receive alerts from anywhere, at any time



## Integration with other systems

Can be integrated with other systems, such as SCADA or building management systems, to optimize liquid usage and prevent overflows or spills.



# Real - Time Energy Monitoring System



**Data Visualization**  
The energy data is presented in a graphical format that is easy to understand.



**Real-time Alerts**  
The system can be configured to send real-time alerts when energy consumption exceeds predefined thresholds or when anomalies occur.



**Analytics and Reporting**  
Allow users to identify patterns and trends in energy consumption, as well as generate reports for regulatory compliance or internal audits.



**Sensors and meters**  
Sensors and meters are used to measure energy usage in real-time.

# Temperature Monitoring System



## Real-time monitoring

Monitoring temperature in real-time, with immediate alerts and updates to ensure prompt action.



## Predictive insights

Using advanced algorithms and machine learning to predict and prevent potential issues before they happen.



## Multi-zone monitoring

Monitoring temperature in multiple zones or areas within a building or facility, with customizable settings for each zone.

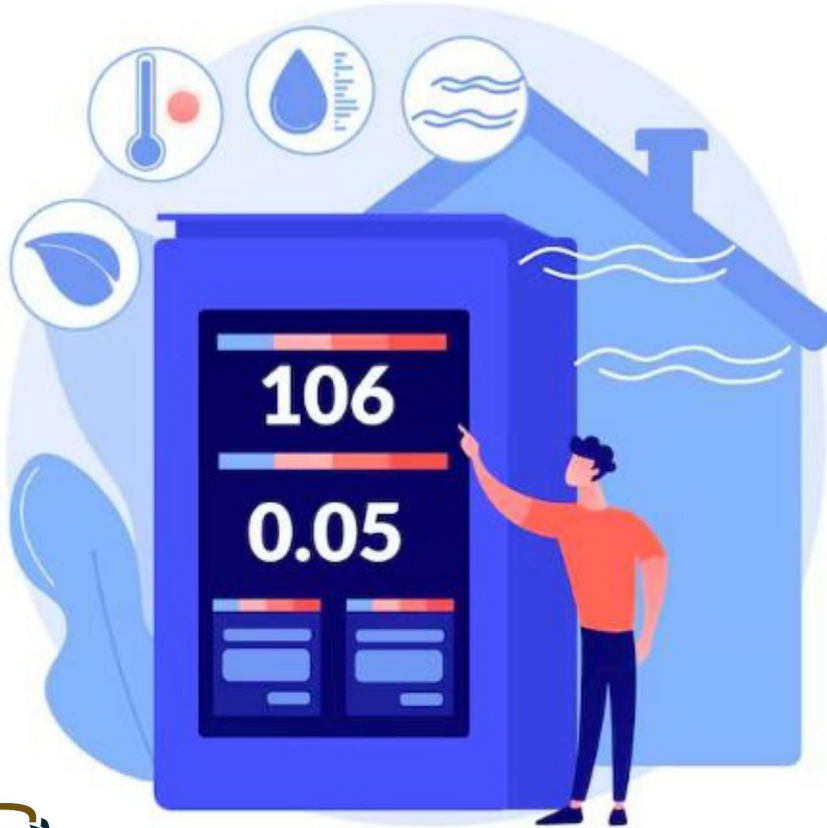


## Integrated systems

Smart temperature monitoring that integrates with other systems, such as smart home systems, medical equipment, or building management systems.



# Smart Temperature Monitoring & Control



Early detection of equipment failures



Remote monitoring & User-friendly interface



Predictive and Preventive maintenance



Increased efficiency & Multi-zone monitoring



Real-time updates & Alerts

# Street Light Automation in Industry 4.0



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## Energy efficiency

Save energy by controlling the light output based on the ambient light level, weather conditions, and time of day. It can also help to reduce energy waste by turning off lights when they are not required.

## Cost saving

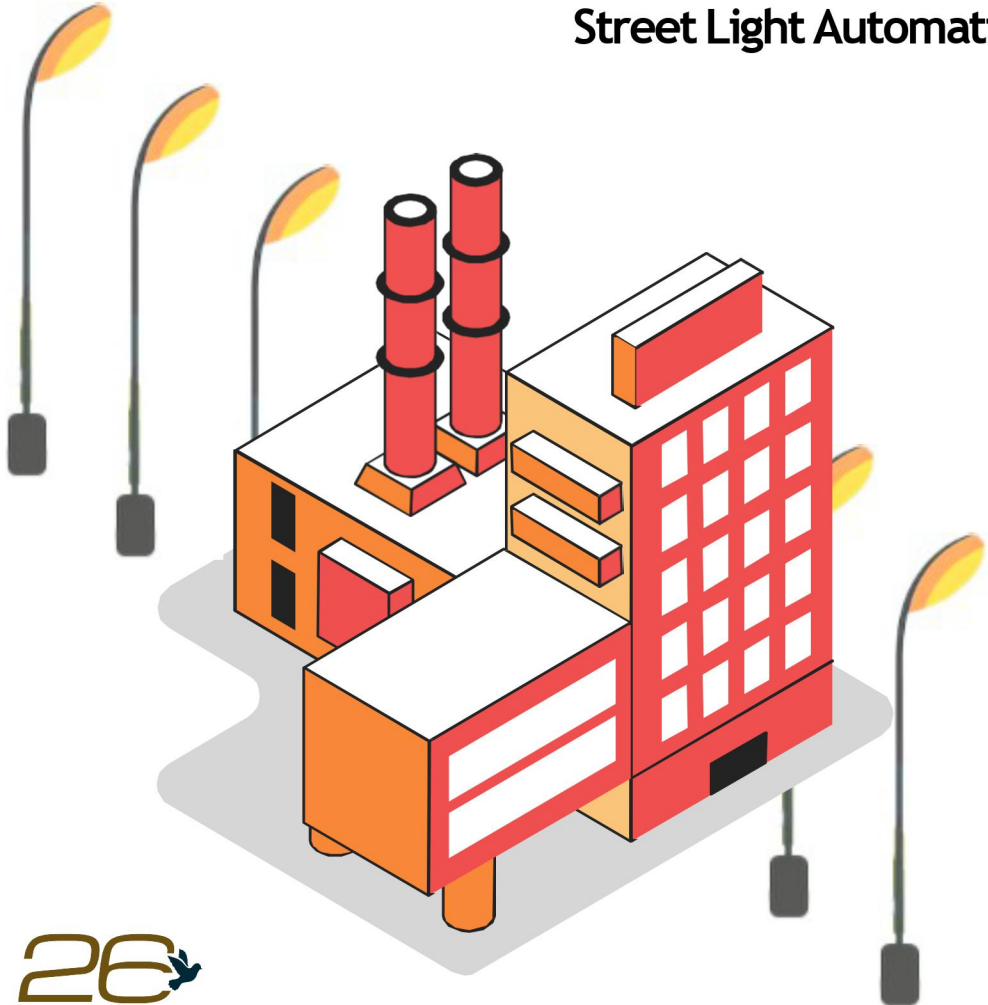
Reduce the maintenance and operational costs associated by automating the process, reducing labor costs and increasing the lifespan of the equipment.

## Safety & improved sustainability

Automated street lights can improve safety on the roads by increasing visibility and reducing the risk of accidents due to poor lighting conditions.

## Real-time monitoring

Industry 4.0 technologies enable real-time monitoring of street lights, allowing quick identification and resolution of any faults or issues.



# Product Counters in Industry 4.0



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## Improved accuracy

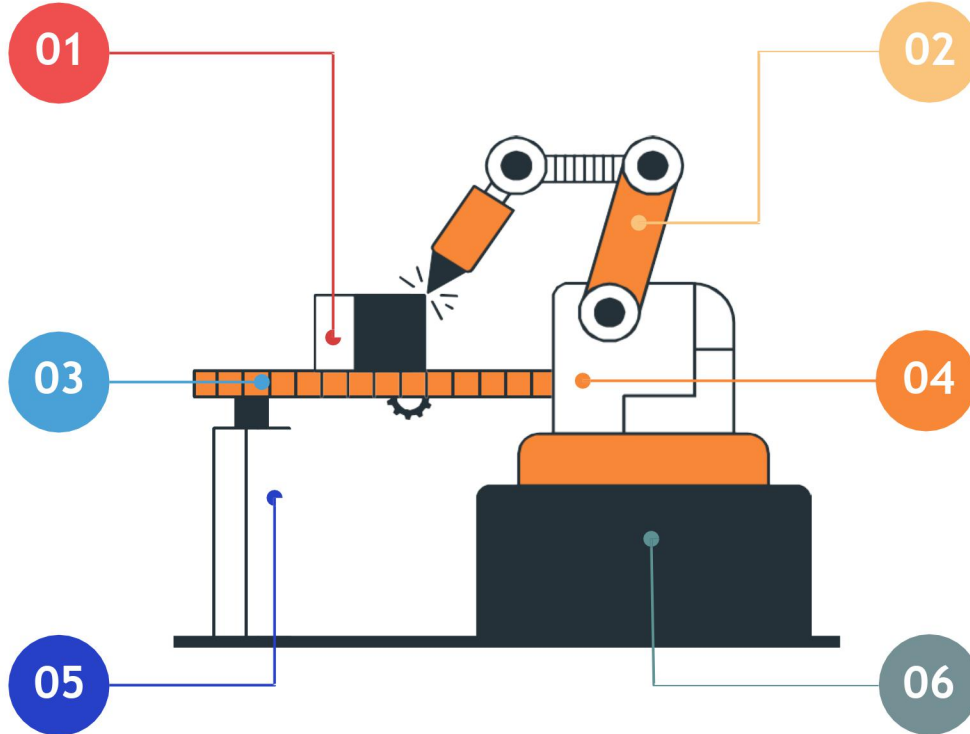
Manual counting methods can be prone to human error, but automated product counters provide accurate and consistent counts of production output.

## Real-time data

Real-time data on production rates and inventory levels, allowing manufacturers to make informed decisions on production scheduling and resource allocation.

## Reduced labor costs

By automating the counting process, manufacturers can reduce labor costs associated with manual counting methods.



## Increased efficiency

With real-time data on production rates, manufacturers can identify bottlenecks in the production process and optimize workflows to increase efficiency.

## Better quality control

Track the number of defective products, allowing manufacturers to identify quality control issues and improve their production processes.

## Remote Monitoring

Can be monitored remotely, allowing manufacturers to manage their production processes from anywhere in the world.

# Technologies We Work On



01  
LoRa  
technology

02  
MODBUS

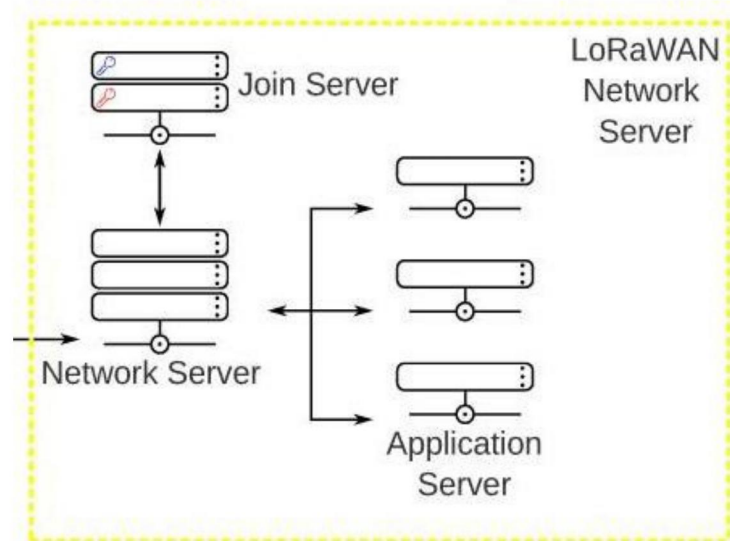
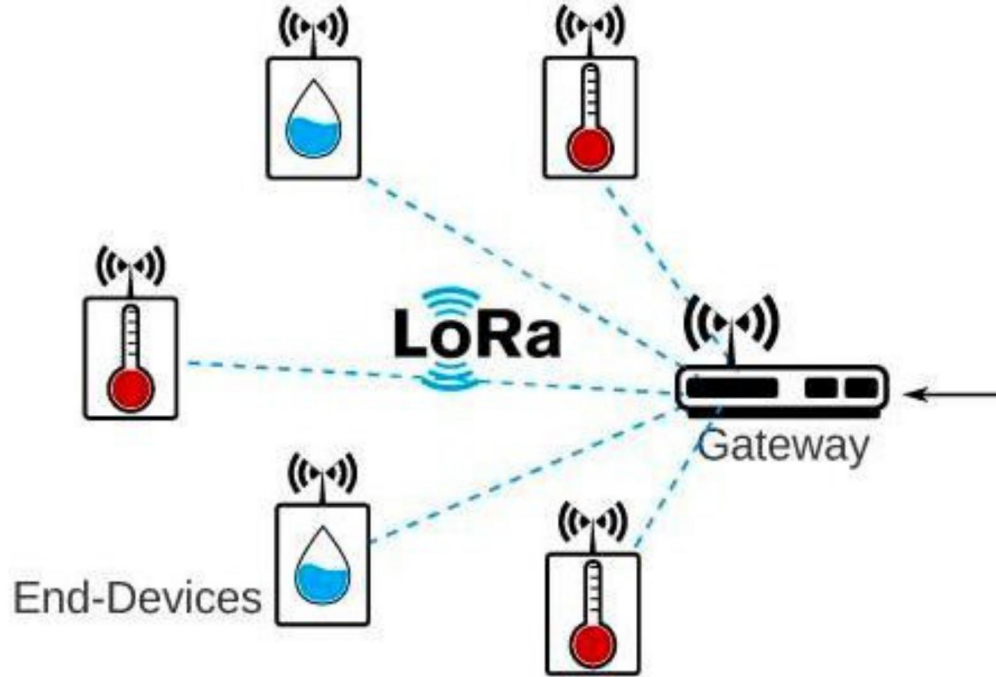
03  
GPRS

04  
Wi-Fi

05  
Bluetooth &  
Zigbee



# LoRa Based Technology



# MODBUS Technology



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SINCE 1998



# Our Solution - In Software



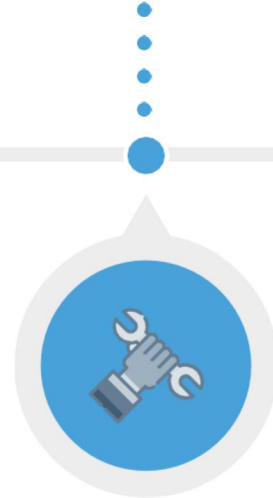
## Data analysis

Enable users to perform in-depth analysis of manufacturing data. This can include trend analysis, correlation analysis, and root cause analysis, among others.



## Alerts

Notify users when specific events occur, such as equipment failures, quality issues, or production delays.



## Customisable Dashboards

A dashboard that shows key performance indicators, such as production output, downtime, and quality metrics.



## Charts and reports

Show manufacturing data in a graphical format. These charts and reports can be customized to show the most relevant data for each user and can be exported to excel or other formats for further analysis.

# Automate And Optimize the Manufacturing Process



## Programmable Logic Controllers (PLCs)

Automate industrial processes by controlling and monitoring equipment such as motors, pumps, and sensors.



## Predictive Maintenance Systems

These systems use data from sensors and other sources to predict when equipment will require maintenance, reducing downtime and maintenance costs.



## Cloud Computing and Analytics

Used to store and analyze large amounts of production data, providing insights into production processes and enabling predictive maintenance.

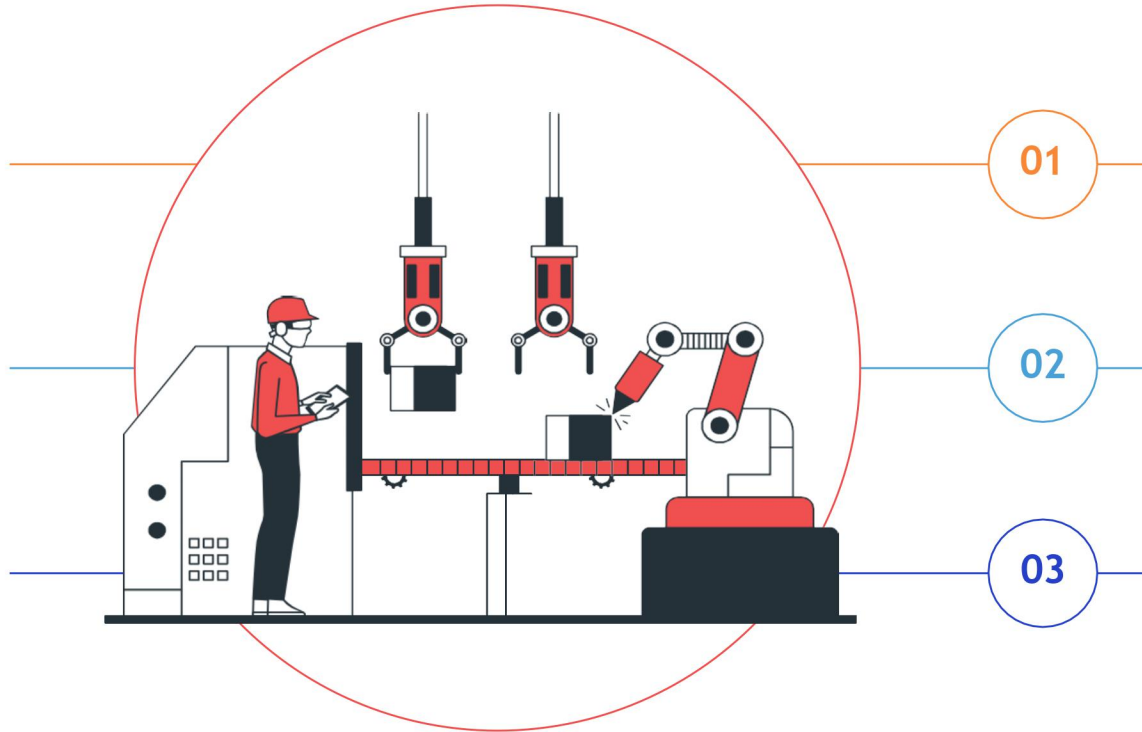


## Scada panel

Software applications that are used to monitor and control industrial processes and infrastructure.



# Thank you



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